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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/975,923	10/12/2001	Yat Sun Or	ENP-031	9229

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ENANTA PHARMACEUTICALS, INC.  
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EXAMINER

LIU, SAMUEL W

ART UNIT	PAPER NUMBER
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1653

DATE MAILED: 06/30/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/975,923

Applicant(s)

OR ET AL.

Examiner

Samuel W Liu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on 16 April 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 5-8 and 10-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

The response filed 16 April 2003 (Paper No. 9) as to amendment of claims 1-4, and applicants' amendment filed 20 December 2002 (Paper No. 8) as to amendment of claim 3 and addition of new claims 13-14 have been entered (please note that examiner received the applicants' amendment after the Office action mailed 15 January 2003). Claims 5-8 and 10-14 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention. Thus, the following Office action is applicable to the pending claims 1-4 and 9.

Note that the grounds of objection and/or rejection not explicitly stated and/or set forth below are withdrawn. And, note that the text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Claim Rejections - 35 USC §102***

Claims 1-4 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Wang, N. Y. *et al.* (US Pat. No. 5427960).

Wang *et al.* disclose a cyclosporin structure that meets the limitations of the Formula (I) structure of claim 1 of the instant application (see column 6, formula I, wherein "R<sup>1</sup>", "R<sup>2</sup>" and "R<sup>3</sup>" = H (see line 57); "R<sup>4</sup>" = C(R<sup>5</sup> R<sup>6</sup>)-W<sub>r</sub>-(C=Y)<sub>m</sub>-Z wherein R<sup>5</sup> and R<sup>6</sup> are "H" (see line 60), "r" = 0 (see lines 52-59), "Z" is OR<sub>a</sub> (a = 1 carbon atom, *i.e.*, CH<sub>3</sub>, see lines 67-68), and "Y" is "O" (see lines 47-48); thus, R<sup>4</sup> would be -CH<sub>2</sub> - CO-O-CH<sub>3</sub>). Since Applicant elects "B" as -α-amino butyric acid, "U" as -(D) alanine, "X" as absent, and "Y" as COOCH<sub>3</sub> for patent examination, claims 2-4 are anticipated by the patent reference as well.

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In addition, Wang *et al.* teach a carrier, e.g., bovine serum albumin (see column 3, lines 42-50) for the pharmaceutical component, the cyclosporin, which is an immuno-suppressant for treating autoimmune disease state (see column 1, lines 62-32), e.g., asthma, as applied to claim 9 of the current application.

Response to the rejection under 35 USC 102(b)

The response filed 16 April 2003 comments on the issue regarding anticipation of the claimed cyclosporin (species) covered by the generic formula (I) of Wang *et al.* and asserts that each substituents of  $R^1$ ,  $R^2$ , and  $R^4 = C(R^5 R^6) - W_r - (C=Y)_m - Z$  in the formula embrace a vast member of possible substituents (see page 13); thus applicants infer that the Wang reference cannot anticipate the applicants' species, i.e., the elected cyclosporin derivative molecule. It is of note that, in Wang's reference, both  $R^1$  and  $R^2$  are defined as "H"; and  $R^4$  has the sub-formula  $C(R^5 R^6) - W_r - (C=Y)_m - Z$ , wherein  $R^5$  and  $R^6$  are defined as "H", the parameters "r" and "m" are zero which are selected from the limited number (0 or 1 for "r", and 0, 1 or 2 for "m"). As for as the substituents "Z" is concerned, Wang *et al.* teach that "Z" is selected from the 8 chemical groups (see column 6, lines 66-68) which have the common characteristics: (i) good leaving group, e.g.,  $OR_a$  and  $SR_a$ , and (ii) they are electron donor or/and acceptor (note that these characteristics has been set forth in items *i* and *ii* under the limitation to "Y" in the application claims 1 and 3). This limited number of the substituents and obviously common chemical properties would have been able to "at once envisage" the specific compound within the generic chemical formula, the applicants' compound is thus anticipated. In *re Schauman*, 572 F.2d 312, 197 USPQ 5 (CCPA 1978), claims to a specific compound were anticipated because the prior art

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taught a generic formula embracing a *limited number* of compounds *closely related to each other* in structure and the *properties* possessed by the compound class of the prior art was that disclosed for the claimed compound. The broad generic formula (I) of Wang et al. seems to describe a large number of compounds but the description of the formula in section 3 (see column 6, lines 56-68) is limited to a structure of the limited variable substituents as stated above. Thus, one of ordinary skill in the art would at once envisage the subject matter of the above Wang et al. teaching to produce limited number of the cyclosporin compound according to the structural limitation delineated in the teaching. Of them, the compound having characteristic of  $R^4 = -CH_2-CO-O-CH_3$  reads on the elected cyclosporin of the instant application. Thus, applicants' argument is unpersuasive.

Also, the response filed 16 April 2003 asserts that because the specification defines the claimed pharmaceutical acceptable carrier as "a non-toxic, inert solid, semi-solid or liquid filler, diluent, encapsulating material or formulation auxiliary of any type", the carrier taught by Wang et al., e.g., bovine serum albumin, is distinct from claim 9 the instant application, and asserts that the "carrier" of Applicants' claim 9 refers to a non-covalently linked molecule (see the last paragraph, page 14). The applicants' argument is not persuasive because (i) contrary to the applicants' assertion, the serum albumin is a pharmaceutical acceptable diluent or carrier which meets the definition of pharmaceutical carrier by the current disclosure, and (ii) nowhere in the claims nor the specification particularly sets forth the limitation regarding covalent or non-covalent linkage of the carrier molecule to the pharmaceutical component, e.g., cyclosporin. The above Wang et al. teaching thus meets the limitation of the application claim 9. Therefore, the rejection is maintained.

***Provisional Rejection - Obviousness Type Double Patenting***

Claims 1-4 and 9 of this application conflict with Claims 1-4 and 11 of Application No. 09976219 and Application No. 09800856. 37 CFR 1.78(b) provides that when two or more applications filed by the same applicant contain conflicting claims, elimination of such claims from all but one application may be required in the absence of good and sufficient reason for their retention during pendency in more than one application. Applicant is required to either cancel the conflicting claims from all but one application or maintain a clear line of demarcation between the applications. See MPEP § 822.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130 (b). Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

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Claims 1-4 and 9 are provisionally rejected under the judicially created doctrine of double patenting over claims 1-4 and 11 of copending Application No. 09976219. This is a provisional double patenting rejection because the conflicting claims have not in fact been patented.

Claim 1 of Application 09976219 [see formula I (A1)] discloses a cyclosporin analog that is an obvious structural variation of that set forth in the claim 1 [formula (1)] of the current application. In formula (I) of 09976219, moiety of "A" is an obvious structural variation over the moiety of "A" set forth in formula (I) of the present application in that, provided that "Y" is a functional group ("X" is absent), Application 09976219 discloses the same limitation for the moiety "Y" as that of the present application. Furthermore, because the specification of the current application does not set forth importance of type of chemical bond (the secondly adjacent to "X-Y" linkage) or/and related configuration thereof, the "Y" moieties in the both the reference application and the current application are regarded as structural or functional variations each other.

Claims 2 and 3 of Application 09976219 and claims 2 and 3 of the present application are identical.

Claim 4 of Application 09976219 sets forth the compound wherein  $Y = (SO)Ph$  is an obvious structural variation of the compound wherein  $Y = (4'C(O)SCH_2)Ph$  of claim 4 of the current application.

Claim 11 Application 09976219 sets forth a pharmaceutical composition which is the same as that of claim 9 of the current application; though the scope of the claim is different, the subject matter of the claims of the reference application and the current application are the same,

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*i.e.*, the composition comprising a cyclosporin compound of claim1 and a pharmaceutically acceptable carrier.

Therefore, the instant application and copending application claims are obvious variation.

Claims 1-4 and 9 are provisionally rejected under the judicially created doctrine of double patenting over claims 1-4 and 8 of copending Application No. 09800856. This is a provisional double patenting rejection because the conflicting claims have not in fact been patented.

The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows:

Claim 1 of Application 09800856 [see formula I] discloses a cyclosporin analog that is an obvious structural variation of that set forth in the claim 1 [see formula (1)] of the current application. In formula I of 09800856, moiety of "A" is an obvious structural variation over the moiety of "A" set forth in formula (1) of the present application in that, provided that "Y" is a functional group ("X" is absent), Application 09800856 discloses the same limitation for the moiety "Y" as that of the present application. Furthermore, because the specification of the current application does not set forth importance of type of chemical bond (the secondly adjacent to "X-Y" linkage) or/and related configuration thereof, the "Y" moieties in the both the reference application and the current application are regarded as structural or functional variations each other.



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Claims 2-3 of the Application 09800856 and claims 2-3 of the current application sets forth the same limitations to claim 1 from which the claims depend.

Claim 4 of Application 09800856 is identical to claim 4 of the present application.

Claim 8 of the Application 09800856 discloses the same subject matter as to a pharmaceutical composition as that of claim 9 of the current application, *i.e.*, the composition comprising a cyclosporin compound of claim 1 and a pharmaceutically acceptable carrier.

Therefore, the instant application and copending application claims are obvious variation.

Response to the provisional rejection - Obviousness Type Double Patenting

Since the response filed 16 April 2003 does not address any arguments against the rejection of Obviousness Type Double Patenting, the rejection is reiterated herewith and maintained.

***Conclusion***

No claims are allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be

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calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel Wei Liu whose telephone number is (703) 306-3483.

The examiner can normally be reached from 9:00 a.m. to 5:30 p.m. on weekdays. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Christopher Low, can be reached on 703-308-2923. The fax phone number for the organization where this application or proceeding is assigned is 703 308-4242 or 703 872-9306 (official) or 703 872-9307 (after final). Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 305-4700.

*SWL*

Samuel Wei Liu, Ph.D.

June 15, 2003

*Karen Cochrane Carlson*

KAREN COCHRANE CARLSON, PH.D.  
PRIMARY EXAMINER